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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/440,535	11/16/1999	TAMAKI KOBAYASHI	35.C14023	3083

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EXAMINER

PATEL, ASHOK

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 07/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/440,535

Applicant(s)

KOBAYASHI ET AL.

Examiner

Ashok Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 10-22 and 32-61 is/are pending in the application.
- 4a) Of the above claim(s) 37-39, (41-44)/(37-39) and 45-61 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-22, 32-35, (41-44)/(32-35) is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. Applicant's arguments filed 04/18/2003 have been fully considered but they are not persuasive.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, (10-22)/(1,2), 32, 33, and (41-44)/(32, 33) are rejected under 35 U.S.C. 102(a or b, depending upon effective filing date) as being anticipated by Nishimura et al, EP '892, of record).

Nishimura et al disclose applicant's claimed image forming device (Figures 1, 5, 8-12, 16; page 3, lines 21-26; page 5, lines 39-43) including an electron source (as shown in Figure 1B), the electron source further including: a sodium containing substrate (1), an SiO₂ first layer (2), a second layer containing electron conductive oxide (4), and a pair of electrodes (2, 3) formed on the substrate.

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Consequently, Nishimura et al anticipate applicant's claims 1, 2, (10-22)/(1,2), 32, 33, and (41-44)/(32, 33).

4. Claims 1, 2, (10-22)/(1,2), 32, 33, and (41-44)/(32, 33) are rejected under 35 U.S.C. 102 (a or b depending upon effective filing date-) as being clearly anticipated by Miyamoto et al (EP '931, of record).

In Figures 21b, 9, 9, 10, 16 etc., Miyamoto et al disclose applicant's claimed image forming device including: an electron source includes a sodium containing substrate (1), an SiO₂ layer (6) and an electron conductive oxide layer (2, 3) or layer 4).

Consequently, Miyamoto et al anticipate applicant's claims 1, 2, (10-22)/(1,2), 32, 33, and (41-44)/(32, 33).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not

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commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 3-5, (10-19)/3-5), 34-36 and (41-44)/(34-36) are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura et al (or Miyamoto et al, applied individually), as above.

Although Nishimura et al do not disclose the second layer including SiO₂ or the first layer of the substrate (the substrate structure) including P or B or Ge, providing such elements would have been obvious to one of ordinary skill in the art for optimizing properties of the substrate structure depending upon the application of the substrate structure such as an electron source or a simple base support structure or a spacer etc.. Alternatively, depending upon certain application of the substrate structure, e.g. as a spacer or as a simple base support, providing including P or B or Ge, is not required or would have been a matter of obvious design choice since inclusion of such elements is unnecessary.

7. Following is/are Examiner's response/remarks:

In view of absence of appropriate English translation of certified copies, the Examiner again considers applicant's U.S. filing date as an effective filing date. However, not going into

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details of 35 U.S.C. 102(e) issue, the Examiner drops the prior art rejection under 35 U.S.C 102(e). Up to this point, in absence of applicant's submission of English translation copies of two foreign filed non-English applications, the Examiner does not recognize 11/18/1998 or 11/10/1999 date as applicant's effective filing dates. The Examiner adheres to 11/16/1999 as applicant's effective filing date.

As to applicant's argument about the claimed substrate structure as a precursor to an electron source, the Examiner considers the substrate of Nishimura et al and Miyamoto et al as a precursor to an electron source of an electron emission device. Applicant's claimed product in its final form includes an electron emission device, which further includes an electron source. The Examiner interprets the term "precursor" in its ordinary dictionary meaning.

With respect to initialed PTOL-1449, the Examiner has mailed a copy of PTOL-1449 (which was filed previously on 05/11/2000 as paper no. 5) in the last office action (paper no. 15) showing initialed U.S. Patent 4,954,744). Please note that cover sheet of PTOL-326 indicates that a copy of paper no. 5 was attached with the last office action (paper no. 15). The Examiner however again attached herewith the same copy of the previously filed PTOL-1449 on 05/11/2000.

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8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. This application contains claims 37-39, (41-44)/(37-39) and 45-61 drawn to an invention nonelected with traverse in Paper No. 15. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok

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Patel whose telephone number is 703-305-4934. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 703-305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7382 for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.


Ashok Patel
Primary Examiner
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